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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,550	10/24/2003	Robert S. Beach	SJO920010014US2	1148

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IBM Corporation  
Intellectual Property Law  
5600 Cottle Road (L2PA/0142)  
San Jose, CA 95193

EXAMINER
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SHEEHAN, JOHN P

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 03/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/692,550

Applicant(s)

BEACH, ROBERT S.

Examiner

John P. Sheehan

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 22-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 April 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities:
  - I. The first paragraph of the specification does not refer to parent application Serial No. 09/809,686 and its status.Appropriate correction is required.

### ***Claim Objections***

2. The numbering of the claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).
3. In the Preliminary Amendment submitted October 24, 2003 applicants have not numbered the claims consecutively beginning with the number next following the highest numbered claims previously presented.
4. Accordingly, misnumbered claims 1 to 4 submitted in the Preliminary Amendment submitted October 24, 2005 have been renumbered as claims 22 to 25.

***Claim Interpretation***

5. As presently drafted applicants' claims recite in the preamble of each of claims 22 to 25 that the purpose of applicants' claimed process is to "simultaneously initializing a first and a second antiferromagnetic layer in a magnetic sensor...of a free layer" (claims 22 to 25, lines 1 to 7). A preamble is generally not accorded any patentable weight where, as in the instant claims, it merely recites the purpose of a process and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). In view of this interpretation, applicants' claim 22, for example, is considered to be directed to;

A method comprising:

placing the sensor in an external magnetic field;

adjusting the magnitude of said magnetic field to an optimum value to cause the magnetization of said first ferromagnetic layer in said AP pinned substructure to be substantially perpendicular to the external magnetic field direction;

heating the sensor above the blocking temperature of both said first and second antiferromagnetic layers; and,

cooling the sensor below the blocking temperature of both the first and second antiferromagnetic layers in the presence of said external magnetic field.

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Thus, applicants' claims are not considered to recite the simultaneous initialization of both antiferromagnetic layers in the same process procedure which is applicants' disclosed invention (for example, specification, page 5, lines 11 to 13).

***Claim Rejections - 35 USC § 112, 1<sup>st</sup> Paragraph***

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 22 to 25 are rejected under 35 U.S.C. 112, first paragraph, as being incomplete for omitting essential features, such omission amounting to a gap between the elements. See MPEP § 2172.01 and 2164.08(c). The omitted features are: the active recitation in the body of the claims of the simultaneous initialization of both antiferromagnetic layers in the same process procedure which is applicants' disclosed invention (for example, specification, page 5, lines 11 to 13).

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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8. Claims 22 to 25 are rejected under 35 U.S.C. 102(b) as being anticipated by the admitted known prior art disclosed in the specification at page 3, lines 1 to 16 and page 4, lines 3 to 23.

The admitted known prior art teaches as is disclosed in the specification at page 3, lines 1 to 16 and page 4, lines 3 to 23. In view of the interpretation of the claims set forth above under the heading Claim Interpretation applicants' invention, as claimed, does not distinguish over the process of the admitted known prior art.


### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Sheehan whose telephone number is (571) 272-1249. The examiner can normally be reached on T-F (6:45-4:30) Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John P. Sheehan  
Primary Examiner  
Art Unit 1742

jps